

CommonWealth

Resource Management Corporation

MEMORANDUM

To: Town of Nantucket Ad Hoc Budget Work Group
From: George H. Aronson, CommonWealth Resource Management Corporation
RE: Structural Deficits in the Solid Waste Enterprise Fund
Date: 9 November 2009

Per the request of the Town Administration, this memo presents the results of CRMC's review of budget deficits in the Town's Solid Waste Enterprise Fund (the SWEF or the Fund). The memo provides a broader view of the Town's solid waste activities and costs than were addressed in CRMC's letter report to the Town administration of January 2008, which had focused narrowly on Town costs and practices for management of construction and demolition debris waste (C&D waste).

Our findings can be summarized as follows:

1. The Fund operating budget faces a significant deficit. For Fiscal Year 2010, the deficit in the operating budget exceeds \$1.31 million.
2. The deficits in the Fund operating budget are an inevitable consequence of its current funding structure. Overall, the types and amounts of revenue being collected for the solid waste management activities supported by the Fund are simply not adequate to cover the associated costs. In particular, if the Fund is divided into five cost centers on the basis of the activities, four of the cost centers (composting of household and commercial waste, recycling, C&D waste management and landfill management) generate deficits because either (a) the activities do not have dedicated revenue streams; or (b) the existing revenue streams do not cover ongoing unavoidable operating expenses.
3. The budget deficits are exacerbated by the economic downturn and by loss of volume of certain wastes to competing private sources. For those waste streams on which the Town collects tip fees, both the downturn and the competition have the effect of reducing the amount of materials received by the Town, thus reducing Town revenues and resulting in increased operating deficits.
4. The operating deficits preclude the Town from setting aside funds to prepare for foreseeable and unavoidable legacy capital costs associated with the closure and capping of the Town's landfill (the Landfill). Enterprise funds are typically set up to generate operating surpluses that can be applied to meet future capital needs. With the SWEF running deficits rather than surpluses, however, no such surplus funds are being generated or set aside. The Town will need to draw on sources other than the Fund to meet capital needs at the Landfill in future years.

5. The opportunities for the Town to enhance the existing revenue streams and reduce costs are limited. The limiting factors include the following:
- The Town must continue solid waste management activities that are required to protect the public health and the environment, and that no private entity would undertake --- and must cover the costs of such activities. Such activities include both the disposal of waste being generated on an ongoing basis, and the mitigation and remediation of potential environmental impacts associated with the Landfill as a consequence of past waste management practices.
 - The Town must meet its contractual and legal obligations. Town costs for certain services are determined pursuant to the Waste Services Agreement (the Agreement) with the Town's contract operator, Waste Options of Nantucket, LLC (Waste Options). In 2006, the Town challenged certain provisions of the Agreement through an arbitration proceeding. The challenges failed, and the Town paid a large settlement to Waste Options to resolve the challenges. The Town continues to negotiate with Waste Options to modify the Agreement, which efforts have had some modest successes. Further modifications and successes are anticipated. Nevertheless, to the extent that the Town's obligations reflect Waste Options's actual cost to provide the required services, the Town must meet those obligations -- and should not anticipate that negotiated cost reductions will be sufficient to address the budget deficits in the Fund.
 - The Town cannot raise its waste disposal fees without limit. As the Town increase its tip fees, the waste generators have increased incentive to resort to alternative means of waste disposal, which might include private disposal arrangements or even illegal dumping. Thus, higher fees result in reduced waste volumes, and might result in reduced revenues.
6. New revenue streams are needed to address the required activities that are unfunded or underfunded, especially to support (a) composting of mixed household and commercial waste; (b) the recycling program, which involves processing of recyclable materials at the Materials Recycling Facility (the MRF) and ancillary activities (such as the take-it-or-leave-it-center); and (c) control of the environmental impact of the Landfill through the mining program, closure, capping, and post-closure maintenance of environmental control systems. At the Town's discretion, such revenues might be provided either through new user fees or through additional operating overrides or special transfers of funds from general revenues.

The remainder of this memo summarizes the basis for our conclusions. In the following sections, the memo describes the activities that are supported by the Fund in terms of a limited number of cost centers; presents an estimate of the budget deficit for each cost center and reviews opportunities to enhance revenues and reduce costs.

Activity Cost Centers, Expenses and Revenues

The activities supported by the Fund can be divided into cost centers as described below:

- **Composting.** Household waste and some commercial wastes are accepted at a mixed-waste composting facility (the Composter), which is owned and operated by Waste Options. Revenues from the sale of compost and other products are shared by Waste Options and the Town. Unmarketable residual materials from the composting process are sent for disposal to the Landfill, which Waste Options operates.
- **Recycling.** Recycled materials that are collected separately from household and commercial waste are accepted at the MRF, where they are processed for sale to markets on the mainland. Waste Options operates the MRF on behalf of the Town. The Fund also supports the Town's costs to manage the take-it-or-leave-it building next to the MRF.
- **C&D waste management.** On July 1, 2006, the Massachusetts Department of Environmental Protection (DEP) instituted a ban on the disposal of unprocessed C&D waste in landfills. Since that time, Waste Options has transported C&D waste to off-island facilities at costs that are reimbursed by the Town. The C&D waste is accepted at a transfer station that Waste Options operates adjacent to the Landfill. Not all of the C&D waste that is generated on the island is delivered to the transfer station, because some of the C&D waste is delivered directly from job sites to the mainland by firms that provide construction and demolition services.
- **Miscellaneous and hard-to-manage wastes.** The Town accepts and processes a variety of miscellaneous household wastes, commercial wastes and recyclable materials outside of the Composter, the MRF and the transfer station, including scrap metal, yard waste, clean wood waste, brush, asphalt, brick and concrete (ABC) waste and mixed excavation waste (MEW). The Town also accepts and handles separately certain items that are considered hard-to-manage waste, such as metal appliances, TVs, computer monitors and other devices that contain cathode ray tubes (CRTs), mattresses, refrigerators and other items with freon coils, and tires. Note that some of these miscellaneous and hard-to-manage wastes (e.g., scrap metal, brush, ABC waste, used appliances and tires) are also accepted by private businesses on the island.
- **The Landfill.** The disposal areas at the Landfill include a small active area for disposal of residuals from the composting facility on an ongoing basis; a small inactive lined area that was filled to capacity with compost residuals and C&D waste and a large inactive unlined area. All of these areas will ultimately need to be capped and closed at capital costs that could exceed \$5.5 million.

The compost facility, the MRF, the C&D transfer station and the Landfill are operated on behalf of the Town by Waste Options, which also manages the hard-to-manage wastes. Under the Agreement, the Town's payments to Waste Options include the following fees and costs, which are ultimately expenses of the Fund:

- Flat monthly fees to:
 - Accept up to 23,000 tons per year of municipal solid waste at the Composter.
 - Operate the MRF.
 - Operate the C&D waste transfer station
- Per-ton tip fees to accept:
 - Municipal solid waste in excess of 23,000 tons per year.
 - C&D waste
 - Mixed excavation waste.

In addition, pursuant to the Agreement, the Town is generally responsible for payment of (or reimbursement of Waste Options for) the following direct costs:

- Transport of C&D waste to off-island facilities for processing.
- Capital repairs and replacements to the MRF building.
- Receipt, transport and disposal of hard-to-manage wastes.
- Third-party and material costs for operation of the Landfill, and for construction and closure of Landfill cells.
- Costs of electricity and water for the Composter, the MRF and the Landfill.

Other activities supported by the Fund including professional services, office and general and administrative costs associated with oversight of solid waste management activities.

The sources of revenue to the Fund include the following:

- Landfill user fees assessed against lodging establishments and restaurants.
- Per-ton tip fees collected on deliveries of C&D waste and mixed excavation waste, as well as certain categories of municipal solid waste that are delivered separately (scrap metal, clean wood, brush, asphalt, brick and concrete (ABC) waste).
- Per-item fees collected to accept hard-to-manage waste items.
- The Town's share of revenues from sales of recycled materials, which is 50 percent of the revenue received after netting out the costs of off-island transportation.
- The Town's share of net revenues from compost sales.

Budget Deficits by Cost Center

This section presents data on the deficits for each of the activity cost centers identified above by comparing the sources of revenue dedicated to each cost center with the expenses to the Town for that cost center. The total deficit is then compared to the amount of the operating overrides previously approved by the Town in order to identify the gap between overall revenues and expenses in the Fund.

The projected contributions to the overall Fund budget deficit based on projected revenues and expenses for each cost center from the FY2010 Fund budget are as follows

<i>Cost Center</i>	<i>Line-item</i>	<i>Revenue</i>	<i>Expense</i>	<i>Surplus (Deficit)</i>
Composting	Town user fees	330,600		(2,805,961)
	MSW flat fee		2,788,555	
	MSW tip fee (1)		0	
	Electricity cost		310,000	
	Water cost		10,000	
	Other direct		28,006	
			<u>3,136,561</u>	
C&D waste (2)	Town tip fees	2,924,100		(511,813)
	C&D flat fee		363,223	
	C&D tip fees		1,682,190	
	C&D off-island cost		1,390,500	
			<u>3,435,913</u>	
Recycling (3)	Net Recycling Credit	0		(465,618)
	MRF flat fee		373,818	
	MRF building repairs		74,000	
	Electricity cost		15,000	
	Water cost		2,800	
			<u>465,618</u>	
Landfill	Landfill mining		550,000	(550,000)
	Subtotal			(4,333,392)
Miscellaneous and hard-to-manage waste	Town tip fees	179,977		167,498
	Town per-item fees	162,969		
	MEW tip fees		70,448	
	Direct costs	0	105,000	
		<u>342,946</u>	<u>175,448</u>	
	Total deficit			(4,165,894)
	Operating override			2,855,000
	Unfunded deficit (4)			(1,310,894)

Notes:

1. The Town is not projected to pay tip fees to Waste Options for use of the Composter, because the total amount of waste delivered is projected to be under the limit of 23,000 tons per year.
2. The Fund budget for FY2010 assumes that the Facility accepts 9,000 tons of C&D waste, of which a tip fee is collected on 8,100 tons (the Code 1927 waste). Approximately 900 tons of C&D and bulky waste from residential and public sources are accepted at no charge (the Code 1827 waste). The budgeted cost for C&D waste transportation and disposal on the mainland is based on \$341 per ton. The Town tip fee for C&D waste is set at \$361 per ton, providing a surplus of \$20 per ton for each ton on which a tip fee is collected.
3. Although the budgeted amount for the Net Recycling Credit is zero, a positive value is anticipated for FY2010. The actual value of this credit for FY2009 was \$53,736.
4. The total deficit for the Fund budget in FY2010, \$1,344,471, is slightly different from the totals shown above due to, among other things, administrative and general expenses, which have not been allocated among activity cost centers for the purposes of this analysis.

Key Findings on the Deficits for the Activity Cost Centers

Key findings on the deficits for the activity cost centers as shown in the table are as follows:

- Disposal of household and commercial waste at the Composter generates the largest deficit of any activity cost center, at \$2.806 million. This deficit arises because the only source of revenue is the user fees levied on lodging establishments and restaurants, which are far lower than the associated cost. The deficit for this activity center is approximately equal to the operating override (\$2.855 million).
- The Town gains surplus by charging a tip fee for C&D waste that exceeds its costs. Overall, however, the C&D waste activity cost center has a budgeted deficit of \$511,813, because the volume of C&D waste on which tip fees are earned is not sufficient to generate sufficient surplus to cover (a) the flat fee for C&D paid to Waste Options for the transfer station; and (b) the costs associated with the Code 1827 waste delivered by residents, various public agencies and non-profit organizations, which is accepted at no charge.
- There is no reliable dedicated revenue stream to pay for the recycling program budgeted deficit of \$465,618. When the prices of recycled materials are high, enough revenue might be gathered to offset about 10 percent of the recycling program costs. Recently, during the economic downturn, the prices of recyclable materials declined sharply, and the materials could not be sold for a price that exceeded transportation cost, which is why the FY2010 has a value of zero for this line-item. Historically, the deficit for the recycling program has been made up by transfers from general revenues.
- There is no dedicated revenue stream to pay for the FY2010 Landfill mining cost of \$550,000. For FY2010, \$500,000 of free cash was allocated toward this cost, while the remainder was allocated from the Fund budget.
- No revenues are being set aside to cover the projected future capital costs associated with the closure of the Landfill, which could exceed \$5.5 million. The Landfill mining program is being undertaken as a way to defer and reduce these future costs.
- The Town has been successful in charging tip fees for miscellaneous and hard-to-manage wastes that exceed its costs and that provide a modest surplus to offset a portion of the other deficits. For many of these items, there are private companies that also accept the materials and that can offer the service at lower costs, because the private competitors are not burdened with the Towns' overhead costs. The Town's surplus on this activity center will decline to the extent that materials that contribute to the surplus are diverted to the private competitors.

Based on the above, the budget deficits in the Fund are an inevitable consequence of its current funding structure. The deficits will endure until and unless there are additional revenues to cover all of the costs of the (a) composting of mixed household and commercial waste in the Composter; (b) processing of recyclable materials at the MRF and ancillary activities (such as the take-it-or-leave-it-center); and (c) control of the

environmental impact of the Landfill through the mining program and ultimately through closure, capping, and post-closure maintenance of environmental control systems.

For the two activity cost centers that do have dedicated revenue streams, C&D waste and hard-to-manage waste, the Fund deficit is adversely affected by the economic downturn and by competition with private providers of specific waste management services. The downturn has the effect of reducing the amount of waste being generated and requiring disposal. Thus, the FY2010 budget anticipates collection of tip fees on 8,100 tons of C&D waste, leading to a surplus from that activity of approximately \$162,000 at a spread between the Town's tip fee and the Town's per-ton cost of approximately \$20 per ton. By comparison, in FY2008, the Town collected tip fees on over 11,000 tons of C&D waste, which is equivalent to a surplus of \$220,000 at a spread of \$20 per ton. Thus, a loss of tip fees on 2,900 tons of C&D waste would reduce the surplus, and increase the deficit, by \$58,000. Similar calculations might be performed for the other items on which the Town charges tip fees that exceed its per-ton costs. From a historical perspective, several years ago, the Town was able to generate high surpluses from tip fees on C&D waste, because, when such materials could be accepted for disposal at the Landfill, the spread between Town tip fees and Town costs was on the order of \$100 per ton. Those surpluses turned into deficits when the Landfill was closed to C&D waste, and when the spreads and waste volumes declined dramatically.

Opportunities to Enhance Revenues and Reduce Costs

As described above, the opportunities for the Town to enhance the existing revenue streams and reduce costs are limited by a number of factors, including the absolute need to continue activities that are required to protect the public health and the environment, and the need for the Town must meet its contractual and legal obligations.

The most effective measures to address the deficit involve dedication of new revenue streams for those that deliver household and/or commercial waste to the Landfill, or that participate in the recycling program. Funds are needed not only to cover the ongoing deficits of these activities, but also to cover the costs of the Landfill mining program and, ultimately, of the costs to close and cap the Landfill and maintain the integrity of the environmental monitoring systems through the post-closure period.

As mentioned above, one contributor to the deficit is the fact that the Town accepts C&D and bulky wastes at no cost from Town residents and from public and non-profit agencies. The deficit would be reduced to the extent that the Town can collect tip fees from residents and the agencies for deliveries for C&D and bulky waste.

The Town continues to meet with Waste Options to identify opportunities for cost reductions in transport and disposal of C&D waste to off-island processing facilities and other costs for which the Town is ultimately responsible. As part of this effort, it is worth noting that the flat and per-ton fees paid to Waste Options for various functions do not necessarily match the costs that Waste Options incurs to provide the corresponding

services. For example, it is apparent that the tip fees the Town pays to Waste Options to operate the C&D waste transfer station exceed Waste Options incurred operating costs, while the flat fees that the Town pays to Waste Options to operate the MRF are quite a bit lower than Waste Options incurred operating costs. The Town is working with Waste Options to investigate potential mismatches of fees and incurred costs in the Agreement and to discuss various approaches for restructuring the Agreement to produce cost savings. Nevertheless, the Town should not anticipate that these negotiations will ultimately bring cost reductions sufficient to address the budget deficits in the Fund.